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TITLE: Controller with learning mode for vehicular automatic transmission - has separate memory for gear-changing characteristics subject to adaptation by driver for execution when required

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PATENT-ASSIGNEE: SIEMENS AG[SIEI]

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PATENT-FAMILY:

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| EP 513424 A1 | November 19, 1992 | G |
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| DE 59106771 G | November 30, 1995 | N/A |
| 000 F16H 059/08 | | |
| US 5396420 A | March 7, 1995 | N/A |
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| EP 513424 B1 | October 25, 1995 | G |
| F16H 059/08 | | 009 |

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APPLICATION-DATA:

| PUB-NO | APPL-DESCRIPTOR | APPL-NO |
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| EP 513424A1 May 17, 1991 | N/A | 1991EP-0108043 |
| DE 59106771G May 17, 1991 | N/A | 1991DE-0506771 |
| DE 59106771G May 17, 1991 | N/A | 1991EP-0108043 |
| DE 59106771G N/A | Based on | EP 513424 |
| US 5396420A May 15, 1992 | N/A | 1992US-0884493 |
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ABSTRACTED-PUB-NO: EP 513424A

BASIC-ABSTRACT:

In manual mode (M), gear-changes are effected by a hand lever (10). Other modes (Economy, Sport or Learning) are selected (8) to influence the gear-shift computer (12) in response to engine load (14), road speed (V), accelerator pedal position (FP) and kickdown (KD).

In the learning mode (L), changes into higher ratio are selected manually by the driver and memorised for implementation on demand. Fixed and variable characteristics are held in separate memories (34,35) with upper and lower limits for changing-up.

ADVANTAGE - Changes of transmission ratio can be adapted exactly to driving practices and wishes of driver.

ABSTRACTED-PUB-NO: EP 513424B

EQUIVALENT-ABSTRACTS:

Motor vehicle transmission (3) with a control device by means of which the shift points of the transmission in a mode of operation for automatic gear change (ES) are determined with reference to characteristic shift curves stored in characteristic shift diagrams (34), and which is provided with an evaluation circuit (12) by means of which the driving behaviour of the

driver is recorded
and is taken into account when the shift points of the
transmission are
determined; the transmission (3) also having a mode of
operation for manual
gear change (M) in which the control of the selection of the
gear of the
transmission (3) is made manually by the driver by means of a
manual gear
selector (10), characterised in that the transmission has a
learning (L) mode
of operation which can be triggered by the driver and in which
the shift points
(HSn) which are manually selected by the driver are detected
and are used as
points of reference, to be stored permanently, for adapted
characteristic shift
curves which can be called up as desired in a mode of
operation for adapted
gear change (P) as a separate gear-shift program.

US 5396420A

The control determines shifting points of a transmission from
performance
graphs. An evaluation circuit records a driving style of a driver
to be taken
into account in determining the shifting points of the
transmission. The
driver is allowed to initiate an operating mode during which the
driver
manually selects the shifting points. Shifting points manually
selected by the

driver are permanently stored in memory during the operating mode for calling up the shifting points as desired.

ADVANTAGE - Provisions are made to ignore impermissible shifting points.

CHOSEN-DRAWING: Dwg.1/6 Dwg.1/6 Dwg.6/6

TITLE-TERMS: CONTROL LEARNING MODE VEHICLE
AUTOMATIC TRANSMISSION SEPARATE
MEMORY GEAR CHANGE CHARACTERISTIC
SUBJECT ADAPT DRIVE EXECUTE
REQUIRE

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